IN THE CLAIMS:

Please amend the claims to read as follows:

1. (Currently amended) A method for computer aided detection of medical abnormalities in x-ray medical images comprising the steps of:

processing a digital or digitized x-ray medical image of an object to remove distinguishing effects <u>of at least one operating parameter or physical characteristic</u> of an x-ray device used to form said x-ray medical image and the effects of fat content in the object being imaged, thereby forming a processed x-ray medical image;

<u>processing the processed x-ray medical image according to predetermined values for said at least one operating parameter or physical characteristic to generate a standard-form version of said x-ray medical image characterizing the x-ray medical image of the object that would have been obtained by the x-ray device using said predetermined values therefor;</u> and

processing said ~~processed~~ <u>standard form version of said</u> x-ray medical image with a computer aided detection algorithm that has been optimized with a plurality of x-ray medical images ~~that have been~~ similarly processed <u>into standard-form versions thereof using</u> ~~with respect to~~ the same <u>predetermined values for said at least one</u> operating parameter~~(s)~~ or physical characteristic~~(s)~~<u>; and</u>

<u>storing results of the processing of said standard form version of said x-ray medical image with the optimized computer aided detection algorithm.</u>

2. (Original) The method of claim 1 wherein the x-ray medical image is a mammogram.

3. (Canceled)

4. (Currently amended) The method of claim 1 wherein ~~the processing removes distinguishing effects of both of the following~~ <u>said at least one</u> operating parameter~~s~~ <u>or physical characteristic</u> of the x-ray device~~:~~ <u>is selected from the group consisting of</u> x-ray energy~~;~~<u>,</u> exposure<u>, and distance between compression plates.</u>

5. (Currently amended) The method of claim 1 wherein the processing removes distinguishing effects of the following physical characteristics of the x-ray device:

anode material;

source to image distance;

anti-scatter grid geometry;

film characteristics; and

screen-film system.

6.   (Canceled)

7.   (Currently amended) The method of claim 1 wherein an x-ray image of a reference material is formed at the same time as the mammogram and under substantially the same conditions, said reference material having known x-ray attenuation characteristics representative of different percentages of fat content in the breast, said method further comprising the step of identifying fat content in the mammogram by comparing exposure values in the mammogram with exposure values on the x-ray image of the reference material.

8.   (Canceled)

9.   (Original) The method of claim 8 wherein the standard x-ray energy is in the range 25-28 kVp.

10.   (Original) The method of claim 8 wherein the standard exposure is in the range 20-200 milli-Ampere-seconds.

11.-21. (Canceled)

22.   (Currently amended) A method for processing mammographic images comprising the steps of:

processing ~~the~~ a plurality of digital or digitized ~~mammogram of a breast~~ mammograms formed by ~~a first~~ different x-ray mammography ~~system~~ systems to remove effects of ~~the first~~ each mammography system and fat content in the breast being imaged, thereby forming [[a]] first processed ~~image~~ images;

converting ~~the~~ each first processed image into a standard-form x-ray mammogram having a first standard x-ray voltage parameter and a first standard exposure parameter; and

storing said standard-form x-ray ~~mammogram~~ mammograms

whereby visual comparison of x-ray mammograms taken by different x-ray mammography systems is facilitated by comparing standard-form x-ray mammograms derived from mammograms taken by the different x-ray mammography systems.

23.   (Previously presented) The method of claim 22 wherein the processing removes distinguishing effects of both of the following operating parameters of the mammography system:

x-ray energy;

exposure

24.   (Canceled)

25.   (Previously presented) The method of claim 22 wherein an x-ray image of a reference material is formed at the same time as the mammogram and under substantially the same conditions, said reference material having known x-ray attenuation characteristics representative of different percentages of fat content in the breast, said method further comprising the step of identifying fat content in the mammogram by comparing exposure values in the mammogram with exposure values on the x-ray image of the reference material.

26.   (Previously presented) The method of claim 22 wherein the standard x-ray voltage parameter is in the range 25-28 kVp.

27.   (Previously presented) The method of claim 22 wherein the standard exposure is in the range 20-200 milli-Ampere-seconds.

28.   (Previously presented) A method for processing mammographic images comprising the steps of:

forming in a first mammography system a digital or digitized mammogram of a breast along with images of first and second reference materials having thicknesses that range from 0 to the thickness of the breast, one reference material having an attenuation constant that is approximately the same as that of fat and the other having an attenuation constant that is approximately the same as that of glandular tissue;

using exposure information in the images of the first and second reference materials to process the digital or digitized mammogram system to remove substantially all effects related to the physical characteristics of the first mammography system and its operating parameters and the effect of fat content in the breast being imaged, thereby forming a first processed image;

converting the first processed image into a standard-form mammogram having pixel values that would have been obtained by a standard-form mammography system having a first standard x-ray voltage parameter and a first standard exposure parameter; and

storing said standard-form mammogram

whereby visual comparison of mammograms taken by different mammography systems is facilitated by comparing standard-form mammograms derived from mammograms taken by the different mammography systems.

29. (Previously presented) The method of claim 28 wherein the processing removes distinguishing effects of both of the following operating parameters of the mammography system:

x-ray energy;

exposure.

30. (Canceled)

31. (Original) The method of claim 28 wherein the standard x-ray voltage parameter is in the range 25-28 kVp.

32. (Original) The method of claim 28 wherein the standard exposure is in the range of 20-200 milli-Ampere-seconds.

33. (New) A method for processing mammographic images comprising the steps of:

processing the digital or digitized mammogram of a breast formed by a first x-ray mammography system to remove effects of the first mammography system and fat content in the breast being imaged, thereby forming a first processed image;

processing the digital or digitized mammogram of a breast formed by a second x-ray mammography system to remove effects of the second mammography system and fat content in the breast being imaged, thereby forming a second processed image;

converting the first and second processed images into standard-form x-ray mammograms having a first standard x-ray voltage parameter and a first standard exposure parameter; and

storing said standard-form x-ray mammograms

whereby visual comparison of x-ray mammograms taken by different x-ray mammography systems is facilitated by comparing standard-form x-ray mammograms derived from mammograms taken by the different x-ray mammography systems.